



## Iron King Mine – Humboldt Smelter Superfund Site

### Frequently Asked Questions

Prepared: July 2010

#### What is Superfund?

Superfund is the commonly-used name for the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Superfund is a federal law that enables the U.S. Environmental Protection Agency (EPA) to respond to hazardous waste sites that threaten public health and the environment. There are six main stages to EPA's cleanup process: 1) site investigation, 2) development and evaluation of cleanup options (called the "Feasibility Study"), 2) remedy selection, 3) cleanup design, 4) cleanup construction, and 5) post-construction monitoring. The site is currently at the Feasibility Study stage.

#### Where is the Iron King Mine – Humboldt Smelter Superfund Site?

The site is located in Dewey-Humboldt, AZ. The Site consists of the following areas: the Iron King Mine; the Humboldt Smelter; portions of the Galena Gulch, Chaparral Gulch, and the Agua Fria River; nearby residential yards; and groundwater.

#### Who is responsible for the contamination? Will they pay for the cleanup?

The term "Potentially Responsible Parties" or "PRPs" refers to companies or individuals who are potentially responsible for generating, transporting, or disposing hazardous substances associated with the site. PRPs also include current owners and operators of the site and parties who were owners or operators during a time of disposal. EPA conducted a search for parties associated with the site and identified 13 PRPs. Once the remedy is selected, EPA may negotiate with the PRPs to perform cleanup activities under EPA oversight and/or to help pay EPA's cleanup costs.

#### How did it become contaminated?

Historic mining practices, ore processing, disposal practices, and closure procedures resulted in the generation and disposition of large quantities of wastes, including waste rock, mine tailings, mine drainage water, slag, and ash. The interaction of natural processes such as climate, hydrology, geochemistry, and weathering with these wastes in addition to human activities have resulted in the release of contaminants which can affect human health and the environment.

#### What are the health risks associated with the site?

EPA conducted a human health risk assessment in 2009 to evaluate the potential harm to residents posed by site contaminants. The risk assessment indicates that contamination at the site could pose health risks (cancer risks and non-cancer hazards) if no cleanup action is taken. The next phase in the Superfund process focuses on developing cleanup options that will reduce the health risks posed by the site to people, animals, and plants.

#### Is the water safe to drink?

The municipal water supply meets federal drinking water standards. However, some private wells have arsenic concentrations above the federal drinking water standard. These arsenic levels are similar to arsenic levels found across Arizona and are not indicative of contributions from the Site.



## Is it safe to eat vegetables or fruits grown in the garden?

---



Gardening in soil with elevated levels of arsenic has two main issues: cleaning soil from the edible portion of the plant and absorption of arsenic by the plant. It is always a good health practice to wash all fruits and vegetables thoroughly whether they are bought or homegrown. Washing the soil from your homegrown fruits and vegetables is one of the most effective ways of reducing your exposure to not only arsenic but to pesticides and germs. Most edible plants absorb some small amounts of arsenic, but usually do not contain enough arsenic to be of health concern. If in doubt, peel root crops like carrots, rutabagas, radishes, and turnips. Also, eat a mix of homegrown and commercial products to help reduce your potential exposure.

## Want to learn more about your garden and soil quality?

---

Join real-world research and foster connections for sharing ideas and resources. Visit the Gardenroots Program website: [www.superfund.pharmacy.arizona.edu/gardenroots.php](http://www.superfund.pharmacy.arizona.edu/gardenroots.php)



## How can I tell if I have been exposed to site contamination?

---

First, ask your health care provider to take an exposure history. A document on how to take an exposure history is available at [http://www.atsdr.cdc.gov/HEC/CSEM/exphistory/docs/exposure\\_history.pdf](http://www.atsdr.cdc.gov/HEC/CSEM/exphistory/docs/exposure_history.pdf)

For some chemicals, blood or urine sampling can tell if you have been exposed. Ask your health care provider if he or she can do these tests or recommend where you could go to have them done. Your health care provider will need some specific information about possible environmental exposures, such time spent in contaminated areas and activities conducted in and around the site. Without that information your health care provider may not be able to tell you what your testing results mean.

For site-specific information about the contaminants, routes of exposure, and potential adverse health effects, please contact the EPA Community Involvement Coordinator who will put you in contact with an EPA toxicologist.

## What areas of the site should residents avoid?

---

EPA recommends that residents limit or avoid contact with soils and any water in the Chaparral Gulch. Chaparral Gulch is easily accessible to the public as no fences or gates prohibit access. EPA recommends that residents also avoid the Humboldt Smelter property and the Iron King Mine property.

## What do I do if I see someone trespassing on the smelter properties?

---

EPA posted signs around the smelter property and periodically repairs breaches in the fence to deter trespassers. However, if trespassers are seen on the smelter property or community members would like to report suspicious or criminal activity, contact the Yavapai County Sheriff's Department at (928) 771-3260 or call 9-1-1 in case of emergency. For environmental concerns, call the Environmental Protection Agency Message Line: (800) 231-3075.

## What cleanup has been done so far?

---

Four residential yards were cleaned up by a responsible party in 2006. EPA is currently developing and evaluating cleanup options for the entire site, including additional residential yards. The community will have an opportunity to provide comments on EPA's cleanup proposal during the Proposed Plan stage.

## When is the site going to be cleaned up?

---

Cleanup actions for the entire site will be designed in 2011 and implemented from 2012 to 2015.

## Are there interim remedies in place, if so what?

---

There are no interim remedies in place for the site at this point. However, to reduce dust generation from the contaminant source areas, portions of the Iron King Mine large tailings pile have been covered with compost and the Humboldt Smelter ash pile will be covered with a soil sealant. These measures will be in place until a final remedy is selected for the site.

## What are the potential future uses of the site?

---

In July 2009, EPA met with current site owners, locally elected officials, Arizona Department of Environmental Quality (ADEQ) staff, Dewey-Humboldt town staff, and interested community members to discuss the site's potential future uses. During these meetings, stakeholders generally agreed on the following set of reuse goals for the Site: 1) Encourage future uses that are consistent with Town's General Plan (preserve low-density lifestyle), 2) Ensure that continued industrial uses are contained and regulated by ADEQ, 3) Provide public educational resources on the historic mining and smelting heritage of the town, 4) Foster renewable energy opportunities, 5) Provide public recreational access, and 6) Ensure individual economic development opportunities. Specific future uses for the site will be determined after EPA selects final cleanup strategy with input from the community and the property owners.

## How will the site affect my property's value and my ability to sell my property?

---



Contaminated sites may have an effect on nearby residential property values. However, property values often rebound following completion of site cleanup activities. Property values are most appropriately discussed with local authorities who are knowledgeable about the local economy and other local conditions that may influence property values.

Real estate agents, banks, other lenders, appraisers, and public or private assessors should be able to provide information about property values. Local government agencies—such as your taxing authority—may also be able to give you information on property values. The Arizona Department of Realtors can provide you with a Residential Seller's Property Disclosure Statement to report the environmental conditions of your property. Their website is <http://www.re.state.az.us/>

## Who can I contact with more information?

---

Contact EPA's Community Involvement Coordinator, David Cooper, to be added to the site mailing and/or email list or visit the following websites:

<http://www.epa.gov/region09/ironkingmine>

<http://www.azdeq.gov/enviro/waste/sps/statesites.html#ironking>

### **David Cooper**

EPA Community Involvement Coordinator  
(415) 972-3245

Toll-free message line: (800) 231-3075

[cooper.david@epa.gov](mailto:cooper.david@epa.gov)

### **Felicia Calderon**

ADEQ Community Involvement Coordinator  
(602) 771-4167

[calderon.felicia@azdeq.gov](mailto:calderon.felicia@azdeq.gov)